

## **REMARKS**

Claims 1-11 and 23-33 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

Applicants would like to thank the Examiner for courtesy extended during the interview on November 16, 2006. In light of the Examiner Interview and as best understood by Applicants' representative, the above amendments distinguish over the prior art of record subject to further consideration and/or search.

## **ELECTION-RESTRICTION**

The Applicants confirm herein that an election was made on September 18<sup>th</sup>, 2006 to prosecute Group I to Claims 1-11 and 23-33 without traverse.

## **CLAIM OBJECTIONS**

The claim limitations of Claims 1 and 23 are objected to for grammatical reasons. Claim 1 is herein amended. Claim 1 now recites a data dependent scrambler (DDS) that: A) receives a user data sequence and CRC<sub>U</sub> bits; B) selects a scrambling seed based on N symbols of the user data sequence; C) generates a scrambled user data sequence based on the user data sequence and the scrambling seed; and D) that generates a difference sequence that is based on the user data sequence and the scrambled user data sequence. Applicants submit that Claim 23 as originally filed appears to be grammatically correct. However, claim 23 is herein amended to recite a scrambling means for: I) receiving a user data sequence and CRC<sub>U</sub> bits; II) selecting a

scrambling seed based on N symbols of the user data sequence; III) generating a scrambled user data sequence that is based on the user data sequence and the scrambling seed; and IV) generating a difference sequence based on the user data sequence and the scrambled user data sequence.

Claims 1 and 23 are further objected to for abbreviation reasons. The Office Action states that the acronyms  $CRC_U$ ,  $CRC_D$  and  $CDC_W$  ought to be specified as in the specification. Applicants submit that the acronyms are specified as in the specification. In Claims 1 and 23 the acronym  $CRC_U$  is specified as a cyclic redundancy check ( $CRC_U$ ) that is based on a user data sequence, thus the subscript U. Since the terms that the CRC acronym stand for are recited in Claims 1 and 23, the terms for other CRC references in the dependent claims of Claims 1 and 23, namely claims 2-5 and claims 24-27, need not be recited. To recite the terms of all CRC acronyms would be redundant. The U, D, and W subscripts refer to CRCs that are based on a user data sequence, a difference sequence, and a scrambled user data sequence, respectively. The basis for each are recited in Claims 1-5 and 24-27. Thus, the use of the above acronyms in Claims 1-5 and 24-27 is proper.

#### **REJECTION UNDER 35 U.S.C. § 112**

Claims 1 and 23 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicants regard as the invention.

The Office Action states that it is not clear how and from where the DDS receives the user data sequence and the  $CRC_U$  bits. Applicants submit that the DDS may

receive the user data sequence from the host bus interface or elsewhere in the recited communication channel. The claims recite that the CRC<sub>U</sub> bits are generated in response to the user data sequence. As such, the DDS receives the CRC<sub>U</sub> bits from the host bus interface or the interface means, or from some point downstream from the host bus interface or the interface means. The specification and Figures of the present application provide examples of how and from where the DDS receives the user data sequence and the CRC<sub>U</sub> bits. Applicants do not intend to limit Claims 1 and 23 to any one specific example.

The Office Action further states that it is unclear how the scrambled user data sequence is affected by the user data sequence and the scrambling seed and further generates a difference sequence. As above-stated, Claims 1 and 23 are herein amended to recite the limitations A-D and I-IV. In review of limitations A-D, it is clear that the scrambled user data sequence is generated based a user data sequence and a scrambling seed. Also, the difference sequence is generated based on the user data sequence and the scrambled user data sequence. Note that Claim 10 further recites how the difference sequence may be generated. In addition, to further clarify what is meant by the phrase "data dependent", Claim 1 is herein amended to state that the scrambling seed is generated based on N symbols or, in other words, the content of the user data sequence.

#### **REJECTION UNDER 35 U.S.C. § 103**

Claims 1-10 and 23-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Katayama et al. (U.S. Pub. No. 2003/0135798).

With respect to Claim 1, Applicants submit that Katayama fails to show, teach or suggest the claimed limitations of a data dependent scrambler that generates a scrambling seed based on content of a user data sequence.

As best understood by Applicants, Katayama discloses a random seed scrambler 403 and a seed generator 2603. The random seed scrambler 403 and the seed generator 2603 generate a seed, which is an arbitrary 8-bits. The arbitrary 8-bits are added to a head of a data series. See paragraph [0083] of Katayama. The added 8-bits are not based on the content of the data series. For examples of how a seed may be based on the content of a user data sequence see Claim 6 and paragraph [0037] of the present application. Note that the Office Action is silent with respect to the Claim 6 limitations of a seed finder that generates a scrambling seed, which is dependent upon symbols in a user data sequence.

For the above-stated reasons Katayama also fails to show, teach or suggest the generation of a scrambled user data sequence based on the claimed scrambling seed and the generation of a difference sequence based on the scrambled user data sequence.

A reference must be considered for all that it teaches including disclosures that point towards the invention and disclosures that teach away from the invention. **In re Dow**, 5 USPQ.2d 1529 (Fed. Cir. 1988). It is improper to take teachings in the prior art out of context and give them meanings that they would not have to those skilled in the art. **In re Wright**, 9 USPQ.2d 1649 (Fed. Cir 1989). It is impermissible to pick and choose from a reference on so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what the reference fairly

teaches to one skilled in the art. **Bausch & Lomb, Inc. v. Barnes-Hind, Inc.**, 230 USPQ 416 (Fed. Circ. 1986).

Also, it is a longstanding rule that to establish a prima facie case of obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 143 (CCPA 1974), see MPEP §2143.03. Here, Katayama, the sole reference relied upon, fails to show, teach, or suggest each and every element claimed.

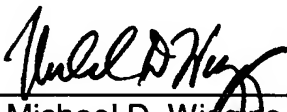
Therefore, since each and every element of Claim 1 is not shown, taught, or suggested by Katayama, Claim 1 is allowable for at least the above-stated reasons. Claim 23 is allowable for at least similar reasons. Claims 2-11, 24-33 and 60-63 ultimately depend from Claims 1 and 23 and are allowable for at least similar reasons.

## CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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